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   Gly Thr Gly Lys Arg Thr Asp Asp Gly Thr
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    Asp Met Arg Pro Gly Asp Lys Lys Val Phe Thr Val Glu Phe Cys Pro
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    Gln Arg Arg
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    Ile Asp Arg
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The House
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Asp Pro Cys Thr Thr Trp Cys Asp Ala Ile Ser Met Arg Met Gly Tyr
Tyr Gly Asp Phe Val Phe Asp Arg Val Leu Gln Thr Asp Val Asn Lys
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                                        75
Glu Phe Gln Met Gly Ala Lys Pro Thr Thr Ala Thr Gly Asn Ala Ala
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Ala Pro Ser Thr
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Leu Met Ile Asp Gly Ile Leu Trp Glu Gly Phe Gly Gly Asp Pro Cys
Asp Pro Cys Thr Trp Cys Asp Ala Ile Ser Met Ile Met Gly Tyr
Tyr Gly Asp Phe Val Phe Asp Arg Val Leu Lys Thr Asp Val Asn Lys
                    70
                                        75
Glu Phe Gln Met Gly Ala Lys Pro Thr Thr Thr Thr Gly Asn Ala Ala
Ala Pro Ser Thr
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Met Lys Lys Leu Leu Lys Ser Val Leu Val Phe Ala Ala Leu Ser Ser
Ala Ser Ser Leu Gln Ala Leu Pro Val Gly Asn Pro Ala Glu Pro Ser
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Leu Met Ile Asp Gly Ile Leu Trp Glu Gly Phe Gly Gly Asp Pro Cys
                            40
Asp Pro Cys Thr Thr Trp Cys Asp Ala Ile Ser Met Arg Met Gly Tyr
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Tyr Gly Asp Phe Val Phe Asp Arg Val Leu Glu Thr Asp Val Asn Lys

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                                25
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Asp Pro Cys Thr Thr Trp Cys Asp Ala Ile Ser Met Ile Met Gly Tyr
Tyr Gly Asp Phe Val Phe Asp Arg Val Leu Lys Thr Asp Val Asn Lys
Glu Phe His Met Gly Asp Lys Pro Thr Ser Thr Thr Gly Asn Ala Thr
Ala Pro Thr Thr
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Leu Met Ile Asp Gly Ile Leu Trp Glu Gly Phe Gly Gly Asp Pro Cys
Asp Pro Cys Thr Thr Trp Cys Asp Ala Ile Ser Met Ile Met Gly Tyr
Tyr Gly Asp Phe Val Phe Asp Arg Val Leu Lys Thr Asp Val Asn Lys
Glu Phe His Met Gly Asp Lys Pro Thr Ala Thr Thr Gly Asn Ala Ala
Ala Pro Ser Thr
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Ala Ser Ser Leu Gln Ala Leu Pro Val Gly Asn Pro Ala Glu Pro Ser
                                25
Leu Met Ile Asp Gly Ile Leu Trp Glu Gly Phe Gly Gly Asp Pro Cys
                            40
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Asp Pro Cys Thr Thr Trp Cys Asp Ala Ile Ser Met Ile Met Gly Tyr 55 Tyr Gly Asp Phe Val Phe Asp Arg Val Leu Lys Thr Asp Val Asn Lys 70 75 Glu Phe Lys Met Gly Glu Ala Leu Ala Gly Ser Thr Gly Asn Thr Thr Ser Thr Leu Ser Lys 100 <210> 51 <211> 103 <212> PRT <213> Chlamydia trachomatis <400> 51 Met Lys Lys Leu Leu Lys Ser Val Leu Val Phe Ala Ala Leu Ser Ser Ala Ser Ser Leu Gln Ala Leu Pro Val Gly Asn Pro Ala Glu Pro Ser Leu Met Ile Asp Gly Ile Leu Trp Glu Gly Phe Gly Gly Asp Pro Cys Asp Pro Cys Thr Thr Trp Cys Asp Ala Ile Ser Met Val Met Gly Tyr 55 Tyr Gly Asp Phe Val Phe Asp Arg Val Leu Lys Thr Asp Val Asn Lys 70 Glu Phe Gln Met Gly Ala Ala Pro Thr Thr Ser Asp Val Ala Ala Gly Leu Gln Asn Asp Pro Thr Ile 100 <210> 52 <211> 102 <212> PRT <213> Chlamydia trachomatis <400> 52 Met Lys Lys Leu Leu Lys Ser Val Leu Val Phe Ala Ala Leu Ser Ser 10 Ala Ser Ser Leu Gln Ala Leu Pro Val Gly Asn Pro Ala Glu Pro Ser Leu Met Ile Asp Gly Ile Leu Trp Glu Gly Phe Gly Gly Asp Pro Cys 40 Asp Pro Cys Thr Thr Trp Cys Asp Ala Ile Ser Met Arg Met Gly Tyr 55 Tyr Gly Asp Phe Val Phe Asp Arg Val Leu Lys Thr Asp Val Asn Lys 70 Glu Phe Gln Met Gly Ala Ala Pro Thr Thr Arg Asp Val Ala Gly Leu Glu Lys Asp Pro Val Val 100 <210> 53 <211> 97 <212> PRT <213> Chlamydia trachomatis

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Ser Asn Asp Pro Thr Thr

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<400> 55

 Met
 Lys
 Lys
 Leu
 Lys
 Ser
 Val
 Ala
 Val
 Ala
 Ala
 Gly
 Ser
 Ser
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 Leu
 Ala
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 Leu
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and the state of t
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Ala Pro Thr Pro
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      <213> Chlamydia pneumoniae
      <400> 56
Met Lys Lys Leu Leu Lys Ala Val Leu Ala Phe Ala Phe Ala Gly Ser
Val Gly Ser Leu Gln Ala Leu Pro Val Gly Asn Pro Ala Ser Asp Ser
                                25
Leu Leu Ile Asp Gly Thr Ile Trp Glu Gly Ala Ala Gly Asp Pro Cys
                            40
Asp Pro Ala Thr Thr Trp Cys Asp Ala Ile Ser Leu Arg Ala Gly Phe
                        55
Tyr Gly Asp Phe Val Tyr Asp Ile Val Leu Lys Val Asp Ala Pro Lys
                    70
                                        75
Thr Phe Ser Met Gly Ala Lys Pro Thr Thr Thr Gly Asn Gly Ser Ala
Ala Ala Asn
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      <211> 100
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      <213> Chlamydia trachomatis
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Cys Thr Ala Arg Glu Asn Pro Ala Tyr Gly Arg His Met Gln Asp Ala
Glu Met Phe Thr Asn Ala Ala Tyr Met Ala Leu Ile Asn Trp Asp Arg
Phe Asp Val Phe Cys Thr Leu Gly Ala Thr Ser Gly Tyr Leu Lys Gly
Asn Ser Ala Ser Phe Asn Leu Val Gly Leu Phe Gly Asp Asn Glu Asn
His Ala Thr Val Ser Asp Ser Lys Leu Val Pro Asn Met Ser Leu Asp
                    70
                                         75
Gln Ser Val Val Glu Leu Tyr Thr Asp Thr Thr Phe Ala Trp Ser Ala
Gly Ala Arg Ala
            100
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Glu Met Phe Thr Asn Cys Ala Tyr Met Ala Leu Ile Asn Trp Asp Arg
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Asn Ser Ala Ser Phe Asn Leu Val Gly Leu Phe Gly Thr Lys Thr Gln

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Ser Ser Ser Phe Asn Thr Ala Lys Leu Ile Pro Asn Thr Ala Leu Asp
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                                         75
Gln Ser Val Val Glu Leu Tyr Ile Asn Thr Thr Phe Ala Trp Ser Val
Gly Ala Arg Ala
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Glu Met Phe Thr Asn Ala Ala Tyr Met Ala Leu Ile Asn Trp Asp Arg
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                                 25
Phe Asp Val Phe Cys Thr Leu Gly Ala Thr Thr Gly Tyr Leu Lys Gly
                             40
Asn Ser Ala Ser Phe Asn Leu Val Gly Leu Phe Gly Thr Lys Thr Gln
                        55
Ser Ser Gly Phe Asp Thr Ala Asn Ile Val Pro Asn Thr Ala Leu Asn
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Gly Ala Arg Ala
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 1
                 5
Glu Met Phe Thr Asn Ala Ala Tyr Met Ala Leu Ile Asn Trp Asp Arg
                                 25
Phe Asp Val Phe Cys Thr Leu Gly Ala Thr Thr Gly Tyr Leu Lys Gly
Asn Ser Ala Ser Phe Asn Leu Val Gly Leu Phe Gly Thr Lys Thr Lys
Ser Ser Asp Phe Asn Thr Ala Lys Leu Val Pro Asn Ile Ala Leu Asn
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Gly Ala Arg Ala
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Gly Ala Arg Ala

100

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Ala Gln Ser Lys Pro Lys Val Glu Glu Leu Asn Val Leu Cys Asn Ala
             20
                                 25
Ala Glu Phe Thr Ile Asn Lys Pro Lys Gly Tyr Val Gly Gln Glu Phe
                             40
Pro Leu Asp Leu Lys Ala Gly Thr Asp Gly Val Thr Gly Thr Lys Asp
Ala Ser Ile Asp Tyr His Glu Trp Gln Ala Ser Leu Ala Leu Ser Tyr
Arg Leu Asn Met Phe Thr Pro Tyr Ile Gly Val Lys Trp Ser Arg Ala
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Ser Phe Asp Ala
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Ala Gln Ser Lys Pro Lys Val Glu Glu Leu Asn Val Leu Cys Asn Ala
Ala Glu Phe Thr Ile Asn Lys Pro Lys Gly Tyr Val Gly Lys Glu Leu
Pro Leu Asp Leu Thr Ala Gly Thr Asp Ala Ala Thr Gly Thr Lys Asp
Ala Ser Ile Asp Tyr His Glu Trp Gln Ala Ser Leu Ala Leu Ser Tyr
Arg Leu Asn Met Phe Thr Pro Tyr Ile Gly Val Lys Trp Ser Arg Ala
Ser Phe Asp Ala
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Ala Leu Trp Glu Cys Gly Cys Ala Thr Leu Gly Ala Ser Phe Gln Tyr
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Ala Gln Ser Lys Pro Lys Val Glu Glu Leu Asn Val Leu Cys Asn Ala
Ala Glu Phe Thr Ile Asn Lys Pro Lys Gly Tyr Val Gly Lys Glu Phe
                            40
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Pro Leu Asp Leu Thr Ala Gly Thr Asp Ala Ala Thr Gly Thr Lys Asp
   Ala Ser Ile Asp Tyr His Glu Trp Gln Ala Ser Leu Ala Leu Ser Tyr
                       70
   Arg Leu Asn Met Phe Thr Pro Tyr Ile Gly Val Lys Trp Ser Arg Ala
   Ser Phe Asp Ala
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   Ala Gln Ser Lys Pro Lys Val Glu Glu Leu Asn Val Leu Cys Asn Ala
14
               20
                                    25
   Ala Glu Phe Thr Ile Asn Lys Pro Lys Gly Tyr Val Gly Gln Glu Phe
                               40
   Pro Leu Ala Leu Ile Ala Gly Thr Asp Ala Ala Thr Gly Thr Lys Asp
Ala Ser Ile Asp Tyr His Glu Trp Gln Ala Ser Leu Ala Leu Ser Tyr
T
                       70
                                           75
M
   Arg Leu Asn Met Phe Thr Pro Tyr Ile Gly Val Lys Trp Ser Arg Ala
   Ser Phe Asp Ala
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   Ala Gln Ser Lys Pro Lys Val Glu Glu Leu Asn Val Leu Cys Asn Ala
               20
                                   25
   Ala Glu Phe Thr Ile Asn Lys Pro Lys Gly Tyr Val Gly Lys Glu Phe
   Pro Leu Asp Leu Thr Ala Gly Thr Asp Ala Ala Thr Gly Thr Lys Asp
                           55
   Ala Ser Ile Asp Tyr His Glu Trp Gln Ala Ser Leu Ala Leu Ser Tyr
                       70
                                           75
   Arg Leu Asn Met Phe Thr Pro Tyr Ile Gly Val Lys Trp Ser Arg Ala
   Ser Phe Asp Ala
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                                25
Ala Glu Phe Thr Ile Asn Lys Pro Lys Gly Tyr Val Gly Lys Glu Phe
                            40
Pro Leu Asp Leu Thr Ala Gly Thr Asp Ala Ala Thr Gly Thr Lys Asp
Ala Ser Ile Asp Tyr His Glu Trp Gln Ala Ser Leu Ser Leu Ser Tyr
                    70
                                        75
Arg Leu Asn Met Phe Thr Pro Tyr Ile Gly Val Lys Trp Ser Arg Ala
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Ser Phe Asp Ser
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Ala Gln Ser Lys Pro Lys Val Glu Glu Leu Asn Val Leu Cys Asn Ala
Ser Glu Phe Thr Ile Asn Lys Pro Lys Gly Tyr Val Gly Ala Glu Phe
Pro Leu Asn Ile Thr Ala Gly Thr Glu Ala Ala Thr Gly Thr Lys Asp
                        55
Ala Ser Ile Asp Tyr His Glu Trp Gln Ala Ser Leu Ala Leu Ser Tyr
                    70
                                        75
Arg Leu Asn Met Phe Thr Pro Tyr Ile Gly Val Lys Trp Ser Arg Val
Ser Phe Asp Ala
            100
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Ala Leu Trp Glu Cys Gly Cys Ala Thr Leu Gly Ala Ser Phe Gln Tyr
Ala Gln Ser Lys Pro Lys Val Glu Glu Leu Asn Val Leu Cys Asn Ala
Ser Glu Phe Thr Ile Asn Lys Pro Lys Gly Tyr Val Gly Ala Glu Phe
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Pro Leu Asp Ile Thr Ala Gly Thr Glu Ala Ala Thr Gly Thr Lys Asp
Ala Ser Ile Asp Tyr His Glu Trp Gln Ala Ser Leu Ala Leu Ser Tyr
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Arg Leu Asn Met Phe Thr Pro Tyr Ile Gly Val Lys Trp Ser Arg Val
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   Ser Glu Phe Thr Ile Asn Lys Pro Lys Gly Tyr Val Gly Ala Glu Phe
   Pro Leu Asp Ile Thr Ala Gly Thr Glu Ala Ala Thr Gly Thr Lys Asp
   Ala Ser Ile Asp Tyr His Glu Trp Gln Ala Ser Leu Ala Leu Ser Tyr
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                                           75
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   Pro Leu Asp Ile Thr Ala Gly Thr Glu Ala Ala Thr Gly Thr Lys Asp
   Ala Ser Ile Asp Tyr His Glu Trp Gln Ala Ser Leu Ala Leu Ser Tyr
                       70
                                           75
   Arg Leu Asn Met Phe Thr Pro Tyr Ile Gly Val Lys Trp Ser Arg Val
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   Ala Gln Ser Lys Pro Lys Val Glu Glu Leu Asn Val Leu Cys Asn Ala
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Ala Glu Phe Thr Ile Asn Lys Pro Lys Gly Tyr Val Gly Gln Glu Phe Pro Leu Asn Ile Lys Ala Gly Thr Val Ser Ala Thr Asp Thr Lys Asp Ala Ser Ile Asp Tyr His Glu Trp Gln Ala Ser Leu Ala Leu Ser Tyr 70 Arg Leu Asn Met Phe Thr Pro Tyr Ile Gly Val Lys Trp Ser Arg Ala Ser Phe Asp Ala 100 <210> 80 <211> 100 <212> PRT <213> Chlamydia pneumoniae <400> 80 Gly Leu Trp Glu Cys Gly Cys Ala Thr Leu Gly Glu Ser Phe Gln Tyr Ala Gln Ser Lys Pro Lys Val Glu Glu Leu Asn Val Ile Cys Asn Val 20 25 Ser Gln Phe Ser Val Asn Lys Pro Lys Gly Tyr Lys Gly Val Ala Phe 40 Pro Leu Pro Thr Asp Ala Gly Val Ala Thr Ala Thr Gly Thr Lys Ser 55 Ala Thr Ile Asn Tyr His Glu Trp Gln Val Gly Ala Ser Leu Ser Tyr 70 75 Arg Leu Asn Ser Leu Val Pro Tyr Ile Gly Val Gln Trp Ser Arg Ala Thr Phe Asp Ala 100 <210> 81 <211> 94 <212> PRT <213> Chlamydia trachomatis <400> 81 Asp Thr Ile Arg Ile Ala Gln Pro Lys Ser Ala Thr Thr Val Phe Asp 10 Val Thr Thr Leu Asn Pro Thr Ile Ala Gly Ala Gly Asp Val Lys Ala 25 Ser Ala Glu Gly Gln Leu Gly Asp Thr Met Gln Ile Val Ser Leu Gln 40 Leu Asn Lys Met Lys Ser Arg Lys Ser Cys Gly Ile Ala Val Gly Thr Thr Ile Val Asp Ala Asp Lys Tyr Ala Val Thr Val Glu Thr Arg Leu 70 Ile Asp Glu Arg Ala Ala His Val Asn Ala Gln Phe Arg Phe <210> 82 <211> 92 <212> PRT

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Gly Thr Glu Gly Gln Leu Gly Asp Thr Met Gln Ile Val Ser Leu Gln 35 40 45

Leu Asn Lys Met Lys Ser Arg Lys Ser Cys Gly Ile Ala Val Gly Thr

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65 70 75

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<212> PRT

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Leu Ile Asp Glu Arg Ala Ala His Val Asn Ala Gln Phe Arg Phe

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